Roemer Residence
49 Birch Road
Darien, CT
10/12/20

Water Quality Volume Calculations

Water Quality Volume (WQV) = ((1") (R) (A)) / 12
Where:
A = total area in square feet
R = 0.05 + 0.009 (I)
I = percent impervious cover

NORTHERN PATIO
Existing Patio: Available Storage = 39.8 cu-ft
A = 306 sf
I = 95%

R = 0.05 + 0.009 (95%)
R = 0.905

WQV = ((1") (R) (A)) / 12
WQV = ((1") (.905) (306 sf)) / 12
WQV = 23.1 cu-ft (required)

SOUTHERN PATIO
Existing Patio: Available Storage = 59.8 cu-ft
A = 780.1 sf
I = 682 sf/ 780.1 sf = 87.4%

R = 0.05 + 0.009 (87.4%)
R = 0.837

WQV = ((1") (R) (A)) / 12
WQV = ((1") (.837) (780.1 sf)) / 12
WQV = 54.4 cu-ft (required)